Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Universal Service Contribution Methodology	)	WC Docket No. 06-122
	)	
A National Broadband Plan For Our Future	)	GN Docket No. 09-51

REPLY COMMENTS OF THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

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SUMMARY

In its Further Notice of Proposed Rulemaking on ways to reform the Universal Service Fund ("USF") contribution system, the Commission seeks comment, *inter alia,* on whether it should revise its contribution rules to expand the type of entities and services that are subject to direct USF assessment and contribution. In examining additional types of services that include telecommunications components which might be subject to direct assessment, the Commission asks whether it should exclude machine-to-machine ("M2M") services such as "smart" meter/grid technologies from USF assessment. The National Rural Electric Cooperative Association agrees with other commenters that the Commission should not treat smart meter/grid technologies as assessable services.

First, the Commission lacks the statutory authority to treat smart meter/grid technologies as assessable services. Smart meter/grid technologies deployed by electric cooperatives may seem akin to information services, which the Commission has historically excluded from USF, but indeed these services are a step further removed from traditional information services in that they are used as an input into the provision of energy services, and do not involve the offering of an information processing capability to third parties. Similarly, the transmission component of smart meter/grid technologies do not meet the statutory definition of telecommunications that would be a prerequisite to bringing them within the USF contribution regime, as in most cases there is no user choosing the information to be transmitted or specifying the transmission points. Finally, assessing smart meter/grid technologies to meet the statutory definition would require the Commission to make the arbitrary and unsupportable finding that a single entity, deploying a functionally integrated technology used as an input for the provision of energy services, is

simultaneously an M2M service provider and user. This would also result in an administratively unenforceable contribution scheme.

Second, even if smart meter/grid technologies are viewed as an information service, as the Commission has long recognized, such services do not involve the provision of telecommunications, but use telecommunications. Consequently, to the extent an energy company purchases assessable telecommunications from a third party to support its smart meter/grid system, it is the services of the third-party provider that should remain directly assessable. Nor should an energy company become a direct contributor when it self-supplies the communications links supporting its smart meter/grid system for all the reasons that operators of internal networks are today not treated as direct contributors. Smart meter/grid technologies are not separate services being provided to electric consumers, they are technologies that are used in and ancillary to the delivery of electric services. Consequently, the Commission should not place burdensome USF obligations on rural electric cooperatives for technologies which support their primary service − the delivery of safe, reliable, and affordable electricity.

Finally, the Commission should exclude smart technologies in order to support marketplace innovation. The Commission has repeatedly recognized the recent growth and importance of smart systems in improving energy efficiency. Assessing rural electric cooperatives for these technologies would discourage smart meter/grid deployment and increase energy costs to rural consumers already facing challenging economic circumstances. The administrative burden that would be placed on rural electric cooperatives to capture, allocate, and report the likely minimal revenues associated with a telecommunications component of smart meter/grid systems far outweighs the minimal potential contribution benefits to the USF system.

For all these reasons, the Commission should decline to define smart meter/grid technologies as assessable services, and should support continued innovation in M2M services.

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The National Rural Electric Cooperative Association ("NRECA"), by its undersigned counsel, respectfully submits these reply comments in response to the comments submitted in connection with the Further Notice of Proposed Rulemaking in the above-captioned proceeding, which proposes various reforms to the USF contribution system.[1] Among other things, the Commission seeks comment on whether it should revise its USF contribution rules to expand the types of entities that are subject to direct USF contribution requirements and the types of services directly assessable under USF.

Specifically, in examining additional types of services that include telecommunications components which might be subject to direct assessment, the Commission asks whether it should exclude M2M services, such as "smart" meter/grid technologies, as assessable services.[2] The Commission also asks whether, to the extent it were to separately decide to assess M2M technologies under one of the various connections-based (rather than revenue-based) approaches under consideration, M2M connections should be assessed on the same basis as other

[1] *See Universal Service Contribution Methodology; A National Broadband Plan For Our Future*, WC Docket No. 6-122 and GN Docket No. 09-51, Further Notice of Proposed Rulemaking, FCC 12-46 (rel. Apr. 30, 2012) ("FNPRM").

[2] FNPRM, ¶ 87.

connections.[3] For the reasons set forth below, NRECA agrees with other commenters that ***excluding*** smart meter/grid technologies from USF assessment is in accordance with the Commission's rules and precedent, and supports marketplace innovation and the public interest.

I. BACKGROUND ON NRECA AND SMART METER/GRID TECHNOLOGIES

A. NRECA

NRECA is the national service organization for more than 900 not-for-profit rural electric utilities that provide electric energy to approximately 42 million people in 47 states – approximately 12 percent of electric customers nationwide. Electric cooperatives generate nearly 5 percent of the total electricity produced each year, and kilowatt-hour sales by rural cooperatives account for approximately 11 percent of all electric energy sold in the United States. The vast majority of NRECA members are not-for profit, consumer-owned cooperatives serving predominantly rural areas. NRECA's membership also includes approximately 65 generation and transmission ("G&T") cooperatives, which generate and transmit power to 668 of the 841 distribution cooperatives. The G&Ts are owned by the distribution cooperatives they serve. Both distribution and G&T cooperatives were formed to provide reliable electric service to their members at the lowest reasonable cost.

B. Smart Meter/Grid Technologies

As consumer-owned, not-for-profit utilities accountable to their members, electric cooperatives have traditionally promoted energy efficiency as an important means of managing cost and keeping members' costs low. The technologies deployed by rural electric cooperatives include sensors, meters, digital controls, and analytic tools to automate and control the two-way flow of energy across operations, monitoring electric service from power plant to plug. Using smart technologies, an energy company can optimize grid performance, prevent outages, restore

[3] *Id.* at ¶ 252.

outages faster, and allow consumers to better manage their energy usage. Critically, for present purposes, a cooperative's use of smart meter/grid infrastructure may best be thought of as an input to the company's primary service − the delivery of safe, reliable, and affordable electricity to its customers. Hence, smart meter/grid technologies are not separate services being provided to electric consumers, they are technologies that are used in and ancillary to the delivery of electric services.

NRECA's internal analysis indicates that approximately half of electric cooperatives have installed at least some smart meter/grid infrastructure in their systems, and cooperatives lead other industry sectors in the total penetration of these advanced technologies. For example, many cooperatives have integrated these technologies with their outage management, customer information, and other monitoring systems to facilitate comprehensive energy management. Where cooperatives have invested in smart technologies, they have done so because these investments make sense for them and their members by helping cooperatives provide customers with safe, reliable power at low cost.

NRECA supports the adoption of a USF contribution methodology that is fair, transparent, sufficient, and predictable, while allowing the Commission the flexibility to respond to industry developments.[4] As discussed below, excluding smart meter/grid technologies from USF assessment would serve these goals, is in accordance with Commission rules and precedent, and would support marketplace innovation and the public interest.

[4] *See id.* at ¶¶ 22-26; 77-78.

II. ASSESSING SMART METER/GRID TECHNOLOGIES WOULD EXCEED THE COMMISSION'S STATUTORY AUTHORITY, WOULD BE ADMINISTRATIVELY INFEASIBLE, AND WOULD BE INCONSISTENT WITH THE COMMISSION'S LONG-STANDING TREATMENT OF THESE TYPES OF TECHNOLOGIES

A. Assessing Smart Meter/Grid Technologies would Exceed the Commission's Statutory Authority and would be Administratively Infeasible

NRECA joins with other commenters in supporting the exclusion of M2M services, such as smart meter/grid technologies, from USF assessment and recognizing the inherent difficulties with assessing these next-generation services.[5] In the FNPRM, the Commission seeks comment on whether it should adopt the following rule:

> *Any interstate information service or interstate telecommunications is assessable if the provider also provides the transmission (wired or wireless), directly or indirectly through an affiliate, to end users.*[6]

The Commission requests input on whether smart meter/grid technologies and other M2M services should be excluded from assessment under the proposed rule.[7] Specifically, the Commission asks whether it possesses the statutory authority to assess smart meter/grid technologies and whether M2M connections should be treated the same as connections between people.[8]

NRECA joins with other commenters in concluding that the answer to these questions must be no.[9] Section 254(d) of the Communications Act of 1934 (the "Act"), as amended, added

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[5] *See, e.g.*, Comments of OnStar, LLC, WC Docket No. 06-122 and GN Docket No. 09-51, at 21-23 (July 6, 2012); Comments of the Alliance of Automobile Manufacturers, WC Docket No. 06-122 and GN Docket No. 09-51, at 3-4 (July 9, 2012) ("AAM Comments"); Comments of the Rural Telecommunications Group, Inc., WC Docket No. 06-122 and GN Docket No. 09-51, at 9-10 (July 9, 2012); Comments of Verizon, WC Docket No. 06-122 and GN Docket No. 09-51, at 48 (July 9, 2012); Comments of CTIA – The Wireless Association®, WC Docket No. 06-122 and GN Docket No. 09-51, at 9 (July 9, 2012) ("CTIA Comments").

[6] FNPRM, at ¶ 75.

[7] *Id.* at ¶¶ 87, 252.

[8] *Id.* at ¶ 87.

[9] *See, e.g.*, Comments of OnStar, LLC, at 21-23; AAM Comments, at 3-4.

by the Telecommunications Act of 1996,[10] states that "provider[s] of interstate *telecommunications* may be required to contribute to the preservation and advancement of universal service if the public interest so requires."[11] As noted in the FNPRM, "telecommunications" is defined as "the transmission, between or among points specified by the user, of information *of the user's choosing*, without change in the form or content of the information as sent and received."[12]

In one sense, smart meter/grid technologies are akin to a quintessential "information service," in that they are systems that generate, acquire, store, transform, process, retrieve, utilize or make available information via a transmission component.[13] And of course, since the inception of the USF program, the Commission has considered information services as separate from telecommunications services and not subject to USF.[14] As the Commission has explained, "Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their services via telecommunications."[15] But while smart meter/grid technologies are similar to information services, they are even a step further removed from the typical information service, in that information services, as defined by the Act, require the "offering of a capability" to process information via telecommunications. Here, however, there is no offering of such capability. Rather, at most, smart meter/grid technologies incorporate telecommunications in connection

[10] Pub. L. No. 104-104, 110 Stat. 56 (1996).

[11] 47 U.S.C. § 254(d) (emphasis added).

[12] FNPRM, at ¶ 87 (citing 47 U.S.C. § 153(50)) (emphasis added).

[13] *See* 47 U.S.C. § 153 (3)(20) (defining "information service").

[14] *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd. 11501 (1998), ¶ 13 ("*Stevens Report*") (concluding that the Communications Act imposed no USF contribution obligations on information services, and stating that "Congress intended the categories of 'telecommunications service' and 'information service' to be mutually exclusive . . . .").

[15] *Id.* (internal quotation omitted).

with systems that support the provision of electric services, so there is no offering of a capability and no offering of an underlying transmission capability to anyone.

More fundamentally, the transmission component of smart meter/grid technologies does not even appear to be "telecommunications" as defined in the Act. Thus, when the FNPRM asks what entity represents the "user" of M2M services,[16] as the Commission previously acknowledged, "[u]nlike person-to-person or person-to-machine interactions, machine-to-machine interactions are processes where the communications occur solely between two or more machines . . . . No human intervention is involved as these systems operate automatically."[17] Hence, M2M communications do not require a user to specify the points of transmission in order to function,[18] and the underlying transmission component does not, therefore, meet the definition of telecommunications in any event. This eliminates any legal basis by which smart meter/grid technologies could be assessable under Section 254.

Moreover, assessing smart meter/grid technologies on the transmission component of these systems would require the Commission to take a functionally integrated system used by a single entity in the provision of a non-telecommunications service (here, electricity) and somehow artificially separate out a transmission component, creating an artificial distinction between an M2M service provider and an M2M user within a single entity where none exists. There would be obvious and significant administrative complexities in separating out costs in such a scenario and no real way to develop a standard methodology that could be easily applied, resulting in an arbitrary and unenforceable contribution scheme. As other commenters have

[16] FNPRM, at ¶ 87.

[17] *In the Matter of Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al.*, CG Docket No. 10-213 *et al.*, Notice of Proposed Rulemaking, 26 FCC Rcd. 3133, ¶ 34 n.91 (2011). *See* Comments of OnStar, LLC, at 21.

[18] *See* Chairman Julius Genachowski Prepared Remarks to International CTIA Wireless 2012, New Orleans, LA (May 8, 2012) (stating that M2M services "transmit[] information automatically").

argued, this would only hamper the Commission's efforts to institute timely USF reform.[19] For these reasons alone, the Commission should therefore conclude that the transmission component in smart meter/grid technologies falls outside of the definition of telecommunications and is not USF assessable.

B. The Commission Has No Basis to Depart from its Long-Standing Treatment of these Types of Technologies for USF Purposes

Even if smart meter/grid technologies are viewed as an information service where a capability is being provided to process and use information via telecommunications, given the complexities with artificially creating a provider and user of these services, the Commission should continue to look to its historical treatment of information services. As the Commission previously explained, when an information service provides the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications, *it does not provide telecommunications; it is using telecommunications*."[20] To the extent there are assessable telecommunications provided by a third party being procured in connection with a smart meter/grid system, NRECA agrees with other commenters suggesting that the party *procuring* those services for purposes of facilitating the M2M communication should be considered the user of the telecommunications component for USF contribution purposes.[21] By contrast, the "underlying supplier of the telecommunications services 'within' the M2M connection" should be considered the

[19] *See* Comments of the Rural Telecommunications Group, Inc., at 9-10; CTIA Comments, at 9.

[20] *Stevens Report*, at ¶ 41 (emphasis added).

[21] Comments of the National Telecommunications Cooperative Association, the Organization for the Promotion and Advancement of Small Telecommunications Companies, and the Western Telecommunications Alliance, WC Docket No. 06-122 and GN Docket No. 09-51, at 34 (July 9, 2012) ("NTCA Comments"). *See* Comments of AARP, WC Docket No. 06-122 and GN Docket No. 09-51, at 31-32 (July 9, 2012).

telecommunications provider subject to the contribution obligation.[22] Consequently, if an energy company procures assessable telecommunications links underpinning its smart system, it is the third-party provider that should be required to contribute to USF based on the revenues derived from such sales, not the energy company.[23] Note that while energy companies would not contribute directly to USF under this scenario, as is the case today, "they support universal service indirectly through the telecommunications services they purchase."[24]

Nor should an energy company become a direct contributor when it self-supplies the communications links supporting its smart meter/grid system. In the *First USF Report and Order*,[25] the Commission concluded that entities which "provide telecommunications solely to meet their internal needs should not be required to contribute to the support mechanisms . . . because telecommunications do not comprise the core of their business."[26] Under this "self-provider" exclusion, "[e]ntities that provide telecommunications only to themselves or to commonly-owned affiliates" are not required to directly contribute.[27] As recognized by other commenters, in particular the National Telephone Cooperative Association, the provision of M2M services is commonly "secondary" to an entity's main business, such as the provision of electricity.[28] Operators of internal networks "that serve only their internal needs do not lease excess capacity to others and do not charge others for use of their network."[29] In addition,

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[22] NTCA Comments, at 34.

[23] *See id.* at 33.

[24] *Stevens Report*, at ¶ 55. *See* NTCA Comments, at 32 (remarking that the M2M user is likely the customer of and in contractual privity with the underlying broadband service provider).

[25] *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd. 8776 (1997) ("*First USF Report and Order*").

[26] *Id.* at ¶ 799 (emphasis added).

[27] 2012 Telecommunications Reporting Worksheet Instructions, FCC Form 499-A, OMB 3060-0855 (Mar. 2012).

[28] NTCA Comments, at 33.

[29] *First USF Report and Order*, at ¶ 799.

assessing internal network operators may create unfair and burdensome USF obligations, as the operators do not normally derive revenues from the provision of services to themselves, but use telecommunications, as is the case here, as an input into other non-communications offerings.[30]

NRECA's internal analysis indicates that a majority of rural electric cooperatives rely on internal networks to support their smart meter/grid systems. The smart meter/grid system is necessarily ancillary to while inseparable from the provision of electricity. The smart system enhances, but is not a substitute for, the services provided by electric cooperatives. The cooperatives would not install smart meter/grid infrastructure absent their provision of electric service and do not offer the smart system separate from these services. As a result, the Commission should exclude smart meter/grid technologies from USF assessment and, to the extent commenters have suggested that an energy company should contribute to USF as a provider of telecommunications through smart meter/grid technologies, these comments should be given no weight.[31]

Even if the Commission still concludes that smart meter/grid technologies represent a type of assessable telecommunications service, it should still exclude smart technologies under its permissive authority to exempt "providers of interstate telecommunications that generally do not compete directly with common carriers."[32] The smart meter/grid technologies implemented by NRECA's members do not compete with common carrier services or other providers of telecommunications.

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[30] *Id.*

[31] *See generally* Comments of the National Association of State Utility Consumer Advocates, WC Docket No. 06-122 and GN Docket No. 09-51, at 6 n. 25 (July 9, 2012); Comments of COMPTEL, WC Docket No. 06-122 and GN Docket No. 09-51, at 20-21 (July 9, 2012).

[32] FNPRM, at ¶ 9.

III. EXCLUDING SMART METER/GRID TECHNOLOGIES FROM USF ASSESSMENT SUPPORTS MARKETPLACE INNOVATION AND THE PUBLIC INTEREST

As demonstrated by other commenters, excluding smart meter/grid technologies from USF assessment would support marketplace innovation and the public interest.[33] The FNPRM requests comment on how assessing M2M services would impact market innovation.[34] As noted in the FNPRM, M2M services have undergone rapid growth in recent years.[35] The Commission has predicted that M2M services "will give us 50 billion connected things by 2020."[36] As Chairman Genachowski recently stated, the United States is "at the dawn of a takeoff in machine-to-machine mobile communications," which will drive innovation in medical, transportation, energy, and other public service areas.[37] The National Broadband Plan recommended "integrat[ing] broadband into the Smart Grid" and "unleashing innovation in smart homes and buildings."[38] The National Broadband Plan stated that smart technologies had the capacity to lower peak energy demand and total energy consumption, while giving consumers the tools to reduce their energy costs.[39]

Assessing smart meter/grid technologies would impede marketplace innovation and defeat the very purpose for which these systems are implemented – to lower costs and provide reliable electric service. The same economic circumstances that led the Commission to subsidize

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[33] *See* Comments of OnStar, LLC, at 21-23; AAM Comments, at 4.

[34] FNPRM, at ¶ 87.

[35] *Id*.

[36] Chairman Julius Genachowski Remarks as Prepared for Delivery, GSMA Mobile World Congress, Barcelona, Spain (Feb. 27, 2012).

[37] Prepared Remarks of Chairman Julius Genachowski, Federal Communications Commission, Telecommunications Industry Association 2011 Summit, Dallas, TX (May 19, 2011).

[38] Federal Communications Commission, Connecting America: The National Broadband Plan, 265-77 (rel. Mar. 16, 2010).

[39] *Id.*

rural telephone service through USF also drove rural electric cooperatives to be early adopters of smart meter/grid technologies. As many electric cooperatives serve low-population areas, it makes sense to deploy smart meter/grid technologies to track outages and problem areas rather than deploying human resources. Assessing rural electric cooperatives would discourage smart meter/grid deployment and increase energy costs to customers that can least afford it.[40] According to NRECA's internal analysis, the median per capita income of rural electric cooperative customer-owners is 21% below the national average. Cooperatives serve an average of 7.4 customers per mile of line and collect an annual revenue of approximately $14,938 per mile of line.[41] Consequently, rural cooperatives would face a difficult choice if assessed by the Commission: deploy smart meter/grid technologies and face increased consumer and business costs, or forgo deployment and face rising energy costs due to the inability to deploy technology to increase efficiency.

As stated above, the smart meter/grid system is inseparable from the provision of electricity. In addition, M2M services represent "low-revenue applications" when compared to normal telecommunications services.[42] The burden of requiring electric cooperatives to somehow account for the likely *de minimis* amount of revenues potentially derived from a telecommunications component of smart meter/grid technologies for USF assessment outweighs the potential contribution benefits to the USF system.[43] Nor can the increased administrative costs to capture and report their USF contributions for companies that are not now USF

[40] *See* Comments of Verizon, at 48 (stating that assessing M2M services may "distort the market for low-revenue applications such as some telematics and machine-to-machine services").

[41] By comparison, investor-owned utilities serve 34 customers per mile of line on average and collect an annual revenue of approximately $75,498 per mile of line.

[42] *See* Comments of Verizon, at 48; AAM Comments, at 3-4.

[43] *See* FNPRM, at ¶ 9 (stating that "[t]he Commission has exempted common carriers whose contributions would be *de minimis*") (citing 47 C.F.R. § 54.708).

contributors or, for the most part, Commission regulatees, be justified. Moreover, assessing an M2M service, especially on a connections-based, flat rate arrangement, could also cause an entity's USF obligations to exceed the interstate revenues generated from the provision of M2M services.[44] Such a result would violate the Commission's duty to establish an "equitable and nondiscriminatory" USF contribution system and must be avoided.[45]

By assessing smart meter/grid technologies, cooperatives will have a reduced incentive to deploy smart energy saving systems that help businesses, communities, and consumers. The Commission should therefore continue to exclude smart meter/grid technologies from USF assessment and support both continued innovation in M2M services and the public interest.

[44] AAM Comments, at 3-4. *See* FNPRM, at ¶ 252.

[45] 47 U.S.C. § 254(b). *See Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 433 (5th Cir. 1999).

IV. CONCLUSION

For the reasons stated above, NRECA agrees with other commenters that excluding smart meter/grid technologies from USF is in accordance with the Commission's rules and precedent; supports marketplace innovation resulting in energy efficiency; and serves the public interest.

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